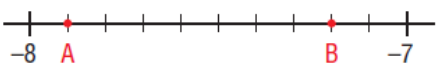
7. Write each rational number as a decimal.

a) $\frac{6}{5}$ b) $-\frac{6}{5}$

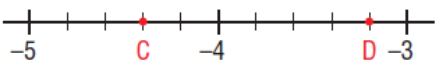
c) $\frac{9}{4}$ d) $-\frac{11}{6}$

8. Write the rational number represented by each letter on the number line, as a decimal.

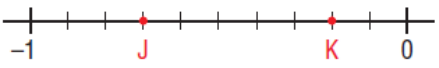
a)



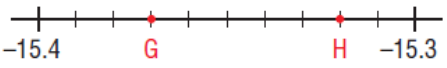
b)



c)



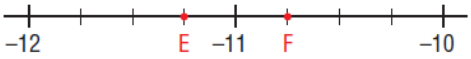
d)



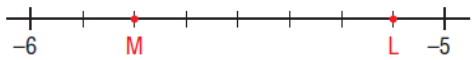
9. For each pair of rational numbers in question 8, identify the greater number.

10. Write the rational number represented by each letter on the number line, as a fraction.

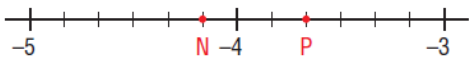
a)



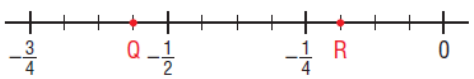
b)



c)



d)



12. Write 3 rational numbers between each pair of numbers.
Sketch a number line to show all the rational numbers.

a) 3.7, 4.2

b) −1.5, 0

c) −4.5, −4

d) −5.6, −4.5

e) −5.6, 5.7

f) 5.6, −5.7

g) −5.6, −5.7

h) −2.98, −2.99

15. Sketch a number line and mark each rational number on it:
$\frac{3}{5}, -\frac{5}{7}, -\frac{8}{3}, -\frac{19}{5}$

19. A student said, "When I compare two numbers, I know that the lesser number is closer to 0." Is this statement always true? Sometimes true? Never true? Explain.

21. Use $<$, $>$, or $=$ to make each expression true. Justify your answers.

a) $-\frac{5}{7} \square -\frac{4}{7}$

b) $-\frac{5}{6} \square -\frac{5}{7}$

c) $-2.2 \square -\frac{11}{5}$

d) $-4.4\overline{6} \square -4.46$

24. Show each set of numbers on a number line. Order the numbers from greatest to least.

a) $\frac{3}{8}, -\frac{3}{4}, -\frac{1}{2}, -\frac{5}{8}, \frac{1}{4}, 0$

b) $\frac{10}{9}, -\frac{5}{3}, \frac{7}{2}, -\frac{3}{2}, -\frac{7}{6}, \frac{17}{3}$

c) $-\frac{9}{5}, -\frac{17}{10}, -1\frac{1}{2}, \frac{16}{4}, -\frac{11}{4}, \frac{21}{5}$

d) $-\frac{11}{2}, \frac{10}{3}, 2\frac{1}{4}, -\frac{8}{6}, \frac{7}{12}, -\frac{6}{4}$

25. Show each set of numbers on a number line. Order the numbers from least to greatest.

a) $3.8, \frac{3}{8}, -1.5, \frac{5}{3}, -2.3, -\frac{3}{2}$

b) $0.3, -0.\overline{3}, \frac{1}{3}, -0.3, 0.33, -3$

26. Use the definition of a rational number to show that each of the following numbers is rational.

a) 3 b) -2 c) -0.5 d) -7.45

27. Which of the following numbers do you think are rational numbers? Explain why.

a) $4.\overline{21}$ b) $-3.121\ 121\ 112\ 111\ 12\ldots$

c) 2.78 d) $-2.122\ 222\ 22\ldots$